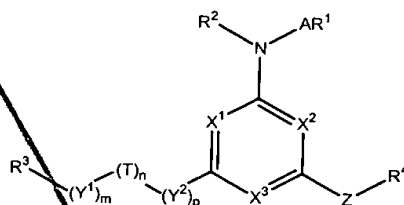


WHAT IS CLAIMED IS:

1. A method of treating a disease state in a mammal that is alleviable by treatment with an agent capable of increasing ABCA-1 expression, comprising administering to a mammal in need thereof a therapeutically effective dose of a compound of the Formula I:



Formula I

wherein:

m, n and p are independently 0 or 1;

A is -C(Z¹)-, -C(Z¹)-NH-, SO₂, or a covalent bond;

where Z¹ is oxygen or sulfur;

R¹ is hydrogen, optionally substituted alkyl, optionally substituted alkenyl, optionally substituted alkynyl, optionally substituted cycloalkyl, optionally substituted heterocyclyl, optionally substituted aryl, or optionally substituted heteroaryl;

R² is hydrogen, alkyl, or cycloalkyl; or

R¹, R² and A when taken together with the nitrogen atom to which they are attached form a nitrogen bearing heterocycle;

R³ is optionally substituted alkyl, optionally substituted cycloalkyl, optionally substituted heterocyclyl, optionally substituted aryl, or optionally substituted heteroaryl;

R⁴ is hydrogen, optionally substituted alkyl, optionally substituted cycloalkyl, optionally substituted heterocyclyl, optionally substituted aryl, or optionally substituted heteroaryl;

T is -O-, -S(O)_q, or -NR⁵-;

in which q is 0, 1, or 2, and R⁵ is hydrogen, optionally substituted alkyl, optionally substituted cycloalkyl, optionally substituted heterocyclyl, optionally substituted aryl, or optionally substituted heteroaryl;

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X¹, X², and X³ are independently -CR⁶ or nitrogen, in which R⁶ is hydrogen, optionally substituted alkyl, optionally substituted cycloalkyl, optionally substituted heterocyclyl, optionally substituted aryl, or optionally substituted heteroaryl;

5 with the proviso that at least one of X¹, X², and X³ is nitrogen.

Y¹ is lower alkylene or carbonyl;

Y² is lower alkylene or oxygen; and

Z is sulfur, oxygen, or -NR⁵-.

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10 2. The method of claim 1, wherein X¹, X², and X³ are all nitrogen.

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3. The method of claim 2, wherein R² is hydrogen, R⁴ is optionally substituted alkyl and Z is sulfur.

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15 4. The method of claim 3, wherein R³ is optionally substituted aryl or optionally substituted heteroaryl,

5. The method of claim 4, wherein m is 0, n is 1, and p is 1.

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20 6. The method of claim 5, wherein A is a covalent bond, and R¹ is hydrogen.

7. The method of claim 6, wherein R³ is optionally substituted phenyl and Y² is methylene.

25 8. The method of claim 7, wherein R⁴ is alkyl of 1-8 carbon atoms and T is oxygen.

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9. The method of claim 8, wherein R³ is 4-t-butylphenyl and R⁴ is methyl, namely 6-{{[4-(tert-butyl)phenoxy]methyl}-4-pentylthio-1,3,5-triazine-2-ylamine.

10. The method of claim 8, wherein R³ is 4-t-butylphenyl and R⁴ is n-pentyl, namely 6- {[4-(tert-butyl)phenoxy]methyl}-4-pentylthio-1,3,5-triazine-2-ylamine.

11. The method of claim 7, wherein R⁴ is alkyl of 1-8 carbon atoms and T is oxygen.

12. The method of claim 11, wherein R³ is 3-chlorophenyl, R⁴ is methyl, and R⁵ is hydrogen, namely 4-[(3-chlorophenylamino)methyl]-6-methylthio-[1,3,5]triazin-2-ylamine.

13. The method of claim 11, wherein R³ is 2,4-dimethoxyphenyl, R⁴ is methyl, and R⁵ is hydrogen, namely N- {[(3,5-dimethoxyphenyl)aminomethyl }-4-methylthio-1,3,5-triazine-2-ylamine;

14. The method of claim 5, wherein A is -C(O)NH-, and R¹ is hydrogen, optionally substituted alkyl, optionally substituted alkenyl, optionally substituted cycloalkyl, or optionally substituted heterocyclyl.

15. The method of claim 14, wherein R³ is optionally substituted phenyl and Y² is methylene.

16. The method of claim 15, wherein R⁴ is alkyl of 1-8 carbon atoms and T is oxygen.

17. The method of claim 16, wherein R¹ is alkyl of 1-6 carbon atoms or alkenyl of 1-6 carbon atoms.

18. The method of claim 17, wherein R¹ is methyl, ethyl, isopropyl, or allyl, and R³ is 4-tert-butylphenyl.

19. The method of claim 18, chosen from N-(6- {[4-(tert-butyl)phenoxy]methyl}-

4-methylthio-(1,3,5-triazine-2-yl))(ethylamino)carboxamide; N-(6-{[4-(tert-butyl)phenoxy]methyl}-4-methylthio-(1,3,5-triazine-2-yl))(methylethylamino)-carboxamide; and N-(6-{[4-(tert-butyl)phenoxy]methyl}-4-methylthio-(1,3,5-triazine-2-yl))(prop-2-enylamino)carboxamide.

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20. The method of claim 5, wherein A is -C(O)-, R² is hydrogen, and R⁴ is alkyl of 1-8 carbon atoms.

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21. The method of claim 20, wherein T is oxygen, R¹ is alkyl of 1-6 carbon atoms or heterocyclyl, and R³ is optionally substituted phenyl.

22. The method of claim 21, wherein R¹ is 2-thiophenyl and R⁴ is methyl, namely N-(6-{[4-(tert-butyl)phenoxy]methyl-4-methylthio-1,3,5-triazine-2-thienyl}carboxamide.

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23. The method of claim 1, wherein X² and X³ are nitrogen and X¹ is -CH-.

24. The method of claim 23, wherein R² is hydrogen, R⁴ is optionally substituted alkyl and Z is sulfur.

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25. The method of claim 24, wherein R³ is optionally substituted aryl or optionally substituted heteroaryl,

26. The method of claim 25, wherein m is 0, n is 1, and p is 1.

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27. The method of claim 26, wherein R³ is optionally substituted phenyl, Y² is methylene, A is a covalent bond, and R¹ is hydrogen.

28. A method for treating a disease or condition in a mammal that can be usefully treated with a compound that elevates serum levels of HDL cholesterol, comprising

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administering to a mammal in need thereof a therapeutically effective dose of a compound of Formula I.

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29. The method of claim 28, wherein the disease state or condition is coronary artery disease or atherosclerosis.

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30. A method for treating a disease or condition in a mammal related to low HDL cholesterol levels, comprising administering to a mammal in need thereof a therapeutically effective dose of a compound of Formula I.

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31. The method of claim 30, wherein the disease state or condition is coronary artery disease or atherosclerosis.

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32. A method for treating a disease or condition in a mammal that can be usefully treated with a compound that promotes cholesterol efflux from cells, comprising administering to a mammal in need thereof a therapeutically effective dose of a compound of Formula I.

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33. The method of claim 32, wherein the disease state or condition is coronary artery disease or atherosclerosis.

and
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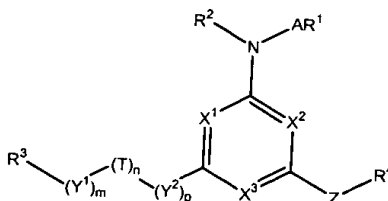
34. A method for treating a condition related to coronary artery disease in a mammal that can be usefully treated with a combination of a compound that elevates serum levels of HDL cholesterol and a compound that lowers LDL cholesterol, comprising administering to a mammal in need thereof a therapeutically effective dose of a compound of Formula I and a compound that lowers LDL cholesterol.

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35. The method of claim 34, wherein the LDL cholesterol lowering compound is chosen from clofibrate, gemfibrozil, and fenofibrate, nicotinic acid, mevinolin, mevastatin, pravastatin, simvastatin, fluvastatin, lovastatin, cholestyrene, colestipol and probucol.

36. A compound of the Formula I:



Formula I

wherein:

5 m, n and p are independently 0 or 1;

A is -C(Z¹)-, -C(Z¹)-NH-, SO₂, or a covalent bond;

where Z¹ is oxygen or sulfur;

10 R¹ is hydrogen, optionally substituted alkyl, optionally substituted alkenyl, optionally substituted alkynyl, optionally substituted cycloalkyl, optionally substituted heterocyclyl, optionally substituted aryl, or optionally substituted heteroaryl;

R² is hydrogen, alkyl, or cycloalkyl; or

R¹, R² and A when taken together with the nitrogen atom to which they are attached form a nitrogen bearing heterocycle;

15 R³ is optionally substituted alkyl, optionally substituted cycloalkyl, optionally substituted heterocyclyl, optionally substituted aryl, or optionally substituted heteroaryl;

R⁴ is hydrogen, optionally substituted alkyl, optionally substituted cycloalkyl, optionally substituted heterocyclyl, optionally substituted aryl, or optionally substituted heteroaryl;

20 T is -O-, -S(O)_q, or -NR⁵-;

in which q is 0, 1, or 2, and R⁵ is hydrogen, optionally substituted alkyl, optionally substituted cycloalkyl, optionally substituted heterocyclyl, optionally substituted aryl, or optionally substituted heteroaryl;

25 X¹, X², and X³ are independently -CR⁶ or nitrogen, in which R⁶ is hydrogen, optionally substituted alkyl, optionally substituted cycloalkyl, optionally substituted heterocyclyl, optionally substituted aryl, or optionally substituted heteroaryl;

with the proviso that at least one of X¹, X², and X³ is nitrogen.

Y¹ is lower alkylene or carbonyl;

Y² is lower alkylene or oxygen; and

Z is sulfur, oxygen, or -NR⁵-.

with the proviso that when A is a covalent bond, R¹ and R² are both hydrogen, and Z is -NH-, m, n, and p cannot all be 0; and

5 when m is 0, Y² is methylene, and Z is -NH-, R³ cannot be lower alkyl; and

when Z is -NH-, R⁴ cannot be phenylethyl; and

when A is a covalent bond, R¹ and R² are both hydrogen, Y² is methylene, and R⁴ is methyl or ethyl, R³ cannot be lower alkyl or unsubstituted phenyl; and

10 when A is a covalent bond, R¹ and R² are both hydrogen, T is oxygen, Z is nitrogen, and Y² is methylene, R⁴ cannot be cycloalkyl or unsubstituted phenyl.

37. The compound of claim 36, wherein X¹, X², and X³ are all nitrogen.

15 38. The compound of claim 37, wherein R² is hydrogen, R⁴ is optionally substituted alkyl and Z is sulfur.

39. The compound of claim 38, wherein R³ is optionally substituted aryl or optionally substituted heteroaryl,

20 40. The compound of claim 39, wherein m is 0, n is 1, and p is 1.

41. The compound of claim 40, wherein A is a covalent bond, and R¹ is hydrogen.

25 42. The compound of claim 41, wherein R³ is optionally substituted phenyl and Y² is methylene.

43. The compound of claim 42, wherein R⁴ is alkyl of 1-8 carbon atoms and T is oxygen.

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44. The compound of claim 43, wherein R^3 is 4-t-butylphenyl and R^4 is methyl, namely 6-{{4-(tert-butyl)phenoxy}methyl}-4-pentylthio-1,3,5-triazine-2-ylamine.

45. The compound of claim 43, wherein R^3 is 4-t-butylphenyl and R^4 is n-pentyl, namely 6-{{4-(tert-butyl)phenoxy}methyl}-4-pentylthio-1,3,5-triazine-2-ylamine.

46. The compound of claim 43, wherein R^3 is 3-chlorophenyl, R^4 is methyl, and R^5 is hydrogen, namely 4-[(3-chlorophenylamino)methyl]-6-methylthio-[1,3,5]triazine-2-ylamine.

47. The compound of claim 43, wherein R^3 is 2,4-dimethoxyphenyl, R^4 is methyl, and R^5 is hydrogen, namely N-{{[(3,5-dimethoxyphenyl)aminomethyl]}-4-methylthio-1,3,5-triazine-2-ylamine.

48. The compound of claim 41, wherein A is -C(O)NH-, and R^1 is hydrogen, optionally substituted alkyl, optionally substituted alkenyl, optionally substituted cycloalkyl, or optionally substituted heterocyclyl.

49. The compound of claim 48, wherein R^3 is optionally substituted phenyl and Y^2 is methylene.

50. The compound of claim 49, wherein R^4 is alkyl of 1-8 carbon atoms and T is oxygen.

51. The compound of claim 50, wherein R^1 is alkyl of 1-6 carbon atoms or alkenyl of 1-6 carbon atoms.

52. The compound of claim 51, wherein R^1 is methyl, ethyl, isopropyl, or allyl, and R^3 is 4-tert-butylphenyl.

53. The compound of claim 52, chosen from N-(6-{{4-(tert-butyl)phenoxy}methyl}-4-methylthio-(1,3,5-triazine-2-yl))(ethylamino)carboxamide;

~~N-(6-{{[4-(tert-butyl)phenoxy]methyl}-4-methylthio-(1,3,5-triazine-2-yl)}(methylethylamino)-carboxamide; and N-(6-{{[4-(tert-butyl)phenoxy]methyl}-4-methylthio-(1,3,5-triazine-2-yl)}(prop-2-enylamino)carboxamide.~~

5 54. The compound of claim 40, wherein A is -C(O)-, R² is hydrogen, and R⁴ is alkyl of 1-8 carbon atoms.

55. The compound of claim 54, wherein T is oxygen, R¹ is alkyl of 1-6 carbon atoms or heterocyclyl, and R³ is optionally substituted phenyl.

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56. The compound of claim 55, wherein R¹ is 2-thiophenyl and R⁴ is methyl, namely N-(6-{{[4-(tert-butyl)phenoxy]methyl-4-methylthio-1,3,5-triazine-2-thienyl}carboxamide.

15 57. The compound of claim 35, wherein X² and X³ are nitrogen and X¹ is -CH-.

58. The compound of claim 57, wherein R² is hydrogen, R⁴ is optionally substituted alkyl and Z is sulfur.

20 59. The compound of claim 58, wherein R³ is optionally substituted aryl or optionally substituted heteroaryl,

60. The compound of claim 59, wherein m is 0, n is 1, and p is 1.

25 61. The compound of claim 60, wherein R³ is optionally substituted phenyl, Y² is methylene, A is a covalent bond, and R¹ is hydrogen.

62. A pharmaceutical composition comprising at least one pharmaceutically acceptable excipient and a therapeutically effective amount of a compound of claim 1.

63. A pharmaceutical composition comprising at least one pharmaceutically acceptable excipient and a therapeutically effective amount of a compound of claim 36.

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